

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 10/577, 622  
Source: PCT  
Date Processed by STIC: 09/29/2005

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 09/29/2005

PATENT APPLICATION: US/10/517,622

TIME: 08:56:23

Input Set : A:\MGH-006.1P USST25.txt

Output Set: N:\CRF4\09292005\J517622.raw

```

3 <110> APPLICANT: ROIG AMOROS, Joan
4     BELHAM, Christopher
5     AVRUCH, Joseph
7 <120> TITLE OF INVENTION: Identification of Inhibitors of Mitosis
9 <130> FILE REFERENCE: MGH-006.1P US
11 <140> CURRENT APPLICATION NUMBER: 10/517,622
12 <141> CURRENT FILING DATE: 2004-12-10
14 <150> PRIOR APPLICATION NUMBER: US 60/387,810
15 <151> PRIOR FILING DATE: 2002-06-11
17 <150> PRIOR APPLICATION NUMBER: PCT/US03/19743
18 <151> PRIOR FILING DATE: 2003-06-11
20 <160> NUMBER OF SEQ ID NOS: 35
22 <170> SOFTWARE: PatentIn version 3.2
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 2937
26 <212> TYPE: DNA
27 <213> ORGANISM: Homo sapiens
29 <400> SEQUENCE: 1
30 atgtcgggtgc tgggcgagta cgagcgacac tgcgattcca tcaactcgga ctttgggagc      60
32 gagtccggggg gttgcgggga ctcgagtcgc gggcctagcg ccagtcaggg gccgcgagcc      120
34 ggcgcggcgcg cggcggagca ggaggaactg cactacatcc ccatecgcgt cctgggcccgc      180
36 ggcgccttcg ggggaagccac gctgtaccgc cgcaccgagg atgactcact ggttgtgtgtg      240
38 aaggaagtgc atttgaccgc gctgtctgag aaggaacgtc gtgatgcctt gaatgagata      300
40 gttattcttg cactgctgca gcacgacaac attattgcct actacaatca cttcatggac      360
42 aataccacgc tgcgtattga gctggaatat tgaatggag ggaacctgta tgacaaaatc      420
44 cttcgtcaga aggacaagt gtttgaggaa gagatgggtg tgtggtacct atttcagatt      480
46 gtttcagcag tgagctgcat ccataaagct ggaatccttc atagagatat aaagacatta      540
48 aatatttttc tgaccaaggc aaacctgata aaacttggag attatggcct agcaaagaaa      600
50 cttaattctg agtattccat ggctgagacg cttgtgggaa ccccatatta catgtctcca      660
52 gagctctgtc aaggagtaaa gtacaatttc aagtctgata tctgggcagt tggctgcgtc      720
54 atttttgaac tgcttacctt aaagaggacg tttgatgcta caaacccact taacctgtgt      780
56 gtgaagatcg tgcaaggaat tcgggccatg gaagttgact ctagccagta ctctttggaa      840
58 ttgatccaaa tgggttcattc gtgccttgac caggatcctg agcagagacc tactgcagat      900
60 gaacttctag atcgccctct tctcaggaaa cgcaggagag agatggagga aaaagtcact      960
62 ctgcttaatg cacctacaaa gagaccaagg tcaagcactg tgactgaagc acccattgct      1020
64 gtagtaacat cacgaaccag tgaagtctat atttggggtg gtggaaaatc cccccccag      1080
66 aaactggatg ttatcaagag tggctgtagt gcccggcagg tctgtgcagg gaatacccac      1140
68 tttgctgtgg tcacagtgga gaaggaactg tacacttggg tgaacatgca aggaggcact      1200
70 aaactccatg gtcagctggg ccatggagac aaagcctcct atcgacagcc aaagcatgtg      1260
72 gaaaagttgc aaggcaaagc tatccatcag gtgtcatgtg gtgatgattt cactgtctgt      1320
74 gtgactgatg agggtcagct ctatgccttc ggatcagatt attatggctg catgggggtg      1380
76 gacaaagttg ctggccctga agtgctagaa cccatgcagc tgaacttctt cctcagcaat      1440
78 ccagtggagc aggtctcctg tggagataat catgtggtgg ttctgacacg aaacaaggaa      1500

```

## RAW SEQUENCE LISTING

DATE: 09/29/2005

PATENT APPLICATION: US/10/517,622

TIME: 08:56:23

Input Set : A:\MGH-006.1P USST25.txt

Output Set: N:\CRF4\09292005\J517622.raw

```

80 gtctattctt ggggctgtgg cgaatatgga cgactgggtt tggattcaga agaggattat 1560
82 tatacaccac aaaaggtgga tgttcccaag gccttgatta ttgttgagcag tcaatgtggc 1620
84 tgtgatggga cttttctgtt gaccagtcga ggcaaagtgc tggcctgtgg actcaatgaa 1680
86 ttcaataagc tgggtctgaa tcagtgcagc tcgggaatta tcaaccatga agcataccat 1740
88 gaagttccct acacaacgtc ctttaccttg gccaaacagt tgtcctttta taagatccgt 1800
90 accattgccc caggcaagac tcacacagct gctattgatg agcgaggccg gctgctgacc 1860
92 ttggctgca acaagtgtgg gcagctgggc gttgggaact acaagaagcg tctgggaatc 1920
94 aacctgttgg ggggacccct tgggtgggaag caagtgatca ggggtctctg cgggtgatgag 1980
96 ttaccattg ctgccactga tgataatcac atttttgcct ggggcaatgg tggtaatggc 2040
98 cgcttgcaa tgaccccccac agagagacca catggctctg atatctgtac ctcattggcct 2100
100 cggcctatctt ttggatctct gcatcatgtc ccggacctgt cttgccgtgg atggcatacc 2160
102 attctcatcg ttgagaaagt attgaattct aagaccatcc gttccaatag cagtggctta 2220
104 tccattggaa ctgtgtttca gagctctagc ccgggaggag gcggcggggg cggcggtggt 2280
106 gaagaagagg acagtcagca ggaatctgaa actcctgacc caagtggagg cttccgagga 2340
108 acaatggaag cagaccgagg aatggaaggt ttaatcagtc ccacagaggc catggggaac 2400
110 agtaatgggg ccagcagctc ctgtcctggc tggcttcgaa aggagctgga aaatgcagaa 2460
112 tttatcccca tgccctgacag cccatctcct ctcagtcagc cgttttcaga atctgagaaa 2520
114 gataccctgc cctatgaaga gctgcaagga ctcaaagtgg cctctgaagc tcctttggaa 2580
116 cacaaccccc aagtagaagc ctctgcaact cggctgaatc ctgcagtaac ctgtgctggg 2640
118 aagggaacac cactgactcc tcctgcgtgt gcgtgcagct ctctgcaggt ggagggtgag 2700
120 agattgcagg gtctggtgtt aaagtgtctg gctgaacaac agaagctaca gcaagaaaac 2760
122 ctccagattt ttacccaact gcagaagttg aacaagaaat tagaaggagg gcagcaggtg 2820
124 gggatgcatt ccaaaggaac tcagacagca aaggaagaga tggaaatgga tccaaagcct 2880
126 gacttagatt cagattccgg gtgcctcctg ggaacagact cctgtagacc cagcctc 2937
129 <210> SEQ ID NO: 2
130 <211> LENGTH: 979
131 <212> TYPE: PRT
132 <213> ORGANISM: Homo sapiens
134 <400> SEQUENCE: 2
136 Met Ser Val Leu Gly Glu Tyr Glu Arg His Cys Asp Ser Ile Asn Ser
137 1 5 10 15
140 Asp Phe Gly Ser Glu Ser Gly Gly Cys Gly Asp Ser Ser Pro Gly Pro
141 20 25 30
144 Ser Ala Ser Gln Gly Pro Arg Ala Gly Gly Gly Ala Ala Glu Gln Glu
145 35 40 45
148 Glu Leu His Tyr Ile Pro Ile Arg Val Leu Gly Arg Gly Ala Phe Gly
149 50 55 60
152 Glu Ala Thr Leu Tyr Arg Arg Thr Glu Asp Asp Ser Leu Val Val Trp
153 65 70 75 80
156 Lys Glu Val Asp Leu Thr Arg Leu Ser Glu Lys Glu Arg Arg Asp Ala
157 85 90 95
160 Leu Asn Glu Ile Val Ile Leu Ala Leu Leu Gln His Asp Asn Ile Ile
161 100 105 110
164 Ala Tyr Tyr Asn His Phe Met Asp Asn Thr Thr Leu Leu Ile Glu Leu
165 115 120 125
168 Glu Tyr Cys Asn Gly Gly Asn Leu Tyr Asp Lys Ile Leu Arg Gln Lys
169 130 135 140
172 Asp Lys Leu Phe Glu Glu Met Val Val Trp Tyr Leu Phe Gln Ile
173 145 150 155 160

```

## RAW SEQUENCE LISTING

DATE: 09/29/2005

PATENT APPLICATION: US/10/517,622

TIME: 08:56:23

Input Set : A:\MGH-006.1P USST25.txt

Output Set: N:\CRF4\09292005\J517622.raw

```

176 Val Ser Ala Val Ser Cys Ile His Lys Ala Gly Ile Leu His Arg Asp
177          165          170          175
180 Ile Lys Thr Leu Asn Ile Phe Leu Thr Lys Ala Asn Leu Ile Lys Leu
181          180          185          190
184 Gly Asp Tyr Gly Leu Ala Lys Lys Leu Asn Ser Glu Tyr Ser Met Ala
185          195          200          205
188 Glu Thr Leu Val Gly Thr Pro Tyr Tyr Met Ser Pro Glu Leu Cys Gln
189          210          215          220
192 Gly Val Lys Tyr Asn Phe Lys Ser Asp Ile Trp Ala Val Gly Cys Val
193 225          230          235          240
196 Ile Phe Glu Leu Leu Thr Leu Lys Arg Thr Phe Asp Ala Thr Asn Pro
197          245          250          255
200 Leu Asn Leu Cys Val Lys Ile Val Gln Gly Ile Arg Ala Met Glu Val
201          260          265          270
204 Asp Ser Ser Gln Tyr Ser Leu Glu Leu Ile Gln Met Val His Ser Cys
205          275          280          285
208 Leu Asp Gln Asp Pro Glu Gln Arg Pro Thr Ala Asp Glu Leu Leu Asp
209          290          295          300
212 Arg Pro Leu Leu Arg Lys Arg Arg Arg Glu Met Glu Glu Lys Val Thr
213 305          310          315          320
216 Leu Leu Asn Ala Pro Thr Lys Arg Pro Arg Ser Ser Thr Val Thr Glu
217          325          330          335
220 Ala Pro Ile Ala Val Val Thr Ser Arg Thr Ser Glu Val Tyr Ile Trp
221          340          345          350
224 Gly Gly Gly Lys Ser Thr Pro Gln Lys Leu Asp Val Ile Lys Ser Gly
225          355          360          365
228 Cys Ser Ala Arg Gln Val Cys Ala Gly Asn Thr His Phe Ala Val Val
229          370          375          380
232 Thr Val Glu Lys Glu Leu Tyr Thr Trp Val Asn Met Gln Gly Gly Thr
233 385          390          395          400
236 Lys Leu His Gly Gln Leu Gly His Gly Asp Lys Ala Ser Tyr Arg Gln
237          405          410          415
240 Pro Lys His Val Glu Lys Leu Gln Gly Lys Ala Ile His Gln Val Ser
241          420          425          430
244 Cys Gly Asp Asp Phe Thr Val Cys Val Thr Asp Glu Gly Gln Leu Tyr
245          435          440          445
248 Ala Phe Gly Ser Asp Tyr Tyr Gly Cys Met Gly Val Asp Lys Val Ala
249          450          455          460
252 Gly Pro Glu Val Leu Glu Pro Met Gln Leu Asn Phe Phe Leu Ser Asn
253 465          470          475          480
256 Pro Val Glu Gln Val Ser Cys Gly Asp Asn His Val Val Val Leu Thr
257          485          490          495
260 Arg Asn Lys Glu Val Tyr Ser Trp Gly Cys Gly Glu Tyr Gly Arg Leu
261          500          505          510
264 Gly Leu Asp Ser Glu Glu Asp Tyr Tyr Thr Pro Gln Lys Val Asp Val
265          515          520          525
268 Pro Lys Ala Leu Ile Ile Val Ala Val Gln Cys Gly Cys Asp Gly Thr
269          530          535          540
272 Phe Leu Leu Thr Gln Ser Gly Lys Val Leu Ala Cys Gly Leu Asn Glu

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/517,622

DATE: 09/29/2005

TIME: 08:56:23

Input Set : A:\MGH-006.1P USST25.txt

Output Set: N:\CRF4\09292005\J517622.raw

273	545				550				555				560			
276	Phe	Asn	Lys	Leu	Gly	Leu	Asn	Gln	Cys	Met	Ser	Gly	Ile	Ile	Asn	His
277					565				570						575	
280	Glu	Ala	Tyr	His	Glu	Val	Pro	Tyr	Thr	Thr	Ser	Phe	Thr	Leu	Ala	Lys
281				580					585					590		
284	Gln	Leu	Ser	Phe	Tyr	Lys	Ile	Arg	Thr	Ile	Ala	Pro	Gly	Lys	Thr	His
285			595					600					605			
288	Thr	Ala	Ala	Ile	Asp	Glu	Arg	Gly	Arg	Leu	Leu	Thr	Phe	Gly	Cys	Asn
289		610					615					620				
292	Lys	Cys	Gly	Gln	Leu	Gly	Val	Gly	Asn	Tyr	Lys	Lys	Arg	Leu	Gly	Ile
293	625					630					635				640	
296	Asn	Leu	Leu	Gly	Gly	Pro	Leu	Gly	Gly	Lys	Gln	Val	Ile	Arg	Val	Ser
297				645					650						655	
300	Cys	Gly	Asp	Glu	Phe	Thr	Ile	Ala	Ala	Thr	Asp	Asp	Asn	His	Ile	Phe
301			660						665					670		
304	Ala	Trp	Gly	Asn	Gly	Gly	Asn	Gly	Arg	Leu	Ala	Met	Thr	Pro	Thr	Glu
305			675					680					685			
308	Arg	Pro	His	Gly	Ser	Asp	Ile	Cys	Thr	Ser	Trp	Pro	Arg	Pro	Ile	Phe
309		690					695					700				
312	Gly	Ser	Leu	His	His	Val	Pro	Asp	Leu	Ser	Cys	Arg	Gly	Trp	His	Thr
313	705					710					715				720	
316	Ile	Leu	Ile	Val	Glu	Lys	Val	Leu	Asn	Ser	Lys	Thr	Ile	Arg	Ser	Asn
317				725						730					735	
320	Ser	Ser	Gly	Leu	Ser	Ile	Gly	Thr	Val	Phe	Gln	Ser	Ser	Ser	Pro	Gly
321				740					745					750		
324	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Glu	Glu	Glu	Asp	Ser	Gln	Gln	Glu
325			755					760					765			
328	Ser	Glu	Thr	Pro	Asp	Pro	Ser	Gly	Gly	Phe	Arg	Gly	Thr	Met	Glu	Ala
329		770					775					780				
332	Asp	Arg	Gly	Met	Glu	Gly	Leu	Ile	Ser	Pro	Thr	Glu	Ala	Met	Gly	Asn
333	785					790					795				800	
336	Ser	Asn	Gly	Ala	Ser	Ser	Ser	Cys	Pro	Gly	Trp	Leu	Arg	Lys	Glu	Leu
337				805						810					815	
340	Glu	Asn	Ala	Glu	Phe	Ile	Pro	Met	Pro	Asp	Ser	Pro	Ser	Pro	Leu	Ser
341				820					825					830		
344	Ala	Ala	Phe	Ser	Glu	Ser	Glu	Lys	Asp	Thr	Leu	Pro	Tyr	Glu	Glu	Leu
345			835					840					845			
348	Gln	Gly	Leu	Lys	Val	Ala	Ser	Glu	Ala	Pro	Leu	Glu	His	Lys	Pro	Gln
349		850					855					860				
352	Val	Glu	Ala	Ser	Ser	Pro	Arg	Leu	Asn	Pro	Ala	Val	Thr	Cys	Ala	Gly
353	865					870					875				880	
356	Lys	Gly	Thr	Pro	Leu	Thr	Pro	Pro	Ala	Cys	Ala	Cys	Ser	Ser	Leu	Gln
357				885						890					895	
360	Val	Glu	Val	Glu	Arg	Leu	Gln	Gly	Leu	Val	Leu	Lys	Cys	Leu	Ala	Glu
361				900					905					910		
364	Gln	Gln	Lys	Leu	Gln	Gln	Glu	Asn	Leu	Gln	Ile	Phe	Thr	Gln	Leu	Gln
365			915					920						925		
368	Lys	Leu	Asn	Lys	Lys	Leu	Glu	Gly	Gly	Gln	Gln	Val	Gly	Met	His	Ser
369		930						935					940			

## RAW SEQUENCE LISTING

DATE: 09/29/2005

PATENT APPLICATION: US/10/517,622

TIME: 08:56:23

Input Set : A:\MGH-006.1P USST25.txt

Output Set: N:\CRF4\09292005\J517622.raw

```

372 Lys Gly Thr Gln Thr Ala Lys Glu Glu Met Glu Met Asp Pro Lys Pro
373 945                      950                      955                      960
376 Asp Leu Asp Ser Asp Ser Gly Cys Leu Leu Gly Thr Asp Ser Cys Arg
377                      965                      970                      975
380 Pro Ser Leu
384 <210> SEQ ID NO: 3
385 <211> LENGTH: 939
386 <212> TYPE: DNA
387 <213> ORGANISM: Homo sapiens
389 <400> SEQUENCE: 3
390 atggcaggac agcccggcca catgccccat ggagggagtt ccaacaacct ctgccacacc      60
392 ctggggcctg tgcatectcc tgacccacag aggcatecca acacgctgtc ttttcgctgc      120
394 tcgctggcgg acttcagat  cgaaaagaag ataggccgag gacagttcag cgaggtgtac      180
396 aaggccacct gcctgctgga caggaagaca gtggctctga agaaggtgca gatctttgag      240
398 atgatggacg ccaaggcgag gcaggactgt gtcaaggaga tcggcctctt gaagcaactg      300
400 aaccacccaa atatcatcaa gtatttggac tcgtttatcg aagacaacga gctgaacatt      360
402 gtgctggagt tggctgacgc aggggacctc tcgcagatga tcaagtactt taagaagcag      420
404 aagcggctca tcccggagag gacagtatgg aagtactttg tgcagctgtg cagcgccgtg      480
406 gagcacatgc attcacgccc ggtgatgcac cgagacatca agcctgccaa cgtgttcac      540
408 acagccacgg gcgtcgtgaa gctcggtgac cttggtctgg gccgttctt  cagctctgag      600
410 accaccgcag cccactccct agtggggacg ccctactaca tgtcaccgga gaggatccat      660
412 gagaacggct acaacttcaa gtccgacatc tggctcttgg gctgtctgct gtacgagatg      720
414 gcagccctcc agagcccctt ctatggagat aagatgaatc tcttctccct gtgccagaag      780
416 atcgagcagt gtgactaccc cccactcccc ggggagcact actccgagaa gttacgagaa      840
418 ctggtcagca tgtgcatctg ccctgacccc caccagagac ctgacatcgg atacgtgcac      900
420 caggtggcca agcagatgca catctggatg tccagcacc      939
423 <210> SEQ ID NO: 4
424 <211> LENGTH: 313
425 <212> TYPE: PRT
426 <213> ORGANISM: Homo sapiens
428 <400> SEQUENCE: 4
430 Met Ala Gly Gln Pro Gly His Met Pro His Gly Gly Ser Ser Asn Asn
431 1                      5                      10                      15
434 Leu Cys His Thr Leu Gly Pro Val His Pro Pro Asp Pro Gln Arg His
435                      20                      25                      30
438 Pro Asn Thr Leu Ser Phe Arg Cys Ser Leu Ala Asp Phe Gln Ile Glu
439                      35                      40                      45
442 Lys Lys Ile Gly Arg Gly Gln Phe Ser Glu Val Tyr Lys Ala Thr Cys
443                      50                      55                      60
446 Leu Leu Asp Arg Lys Thr Val Ala Leu Lys Lys Val Gln Ile Phe Glu
447 65                      70                      75                      80
450 Met Met Asp Ala Lys Ala Arg Gln Asp Cys Val Lys Glu Ile Gly Leu
451                      85                      90                      95
454 Leu Lys Gln Leu Asn His Pro Asn Ile Ile Lys Tyr Leu Asp Ser Phe
455                      100                     105                     110
458 Ile Glu Asp Asn Glu Leu Asn Ile Val Leu Glu Leu Ala Asp Ala Gly
459                      115                     120                     125
462 Asp Leu Ser Gln Met Ile Lys Tyr Phe Lys Lys Gln Lys Arg Leu Ile
463                      130                     135                     140

```

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 09/29/2005

PATENT APPLICATION: US/10/517,622

TIME: 08:56:24

Input Set : A:\MGH-006.1P USST25.txt

Output Set: N:\CRF4\09292005\J517622.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#: 7,8,9,10,11,12,13,14,15,16,17,18,21,22,27,31,32,33,34,35

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/517,622

DATE: 09/29/2005

TIME: 08:56:24

Input Set : A:\MGH-006.1P USST25.txt

Output Set: N:\CRF4\09292005\J517622.raw